

REMARKS

Favorable consideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 8-14 are pending in the application with Claims 1-7 having been cancelled and Claims 8-14 having been added by way of the present amendment.

In the outstanding Office Action dated January 5, 2003, a substitute specification was requested; Claims 1-7 were objected to; Claims 1-7 were rejected under 35 U.S.C § 112, second paragraph; Claims 1-4 and 6-7 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Chang (U.S. Patent No. 6,058,113) in view of Crisler et al. (U.S. Patent No. 5,481,537, hereinafter Crisler); Claim 5 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Chang in view of Crisler and in further view of the article by Jon Crowcroft entitled "*Hierarchical Coding*," (hereinafter Crowcroft) and found on the Internet at http://www.cs.ucl.ac.uk/staff/j.crowcroft/mmbook/book/node_119.html .

In response to the request for a substitute specification, a substitute specification in compliance with 37 C.F.R. § 1.52, along with a marked-up copy, is attached herewith. No new matter is added.

In response to the objection to Claims 1-7 as well as the rejection of Claims 1-7 under 35 U.S.C § 112, second paragraph, Claims 1-7 are hereby cancelled without prejudice or disclaimer. New Claims 8-14 corresponding to cancelled Claims 1-7 are filed herewith. No new matter is added.

Briefly recapitulating, independent Claim 8 is directed to a data and telecommunications transmission method configured to transmit a plurality of data streams between a receiving terminal and a transmitting terminal via at least one fixed network and another network, the another network comprising links with variable bandwidth and quality, and the fixed network being controlled by a resource reservation protocol. The method

comprises updating a specific resource reservation corresponding to a specific data stream at an upstream node in the fixed network when a downstream node the another network is unable to maintain a predetermined transmission quality for the specific data stream; shunting temporarily the specific data stream at the upstream node; and utilizing temporarily the specific resource reservation at the upstream node for other traffic while still maintaining the correspondence of the specific resource reservation and the specific data stream for future reactivation. By only temporarily reassigning resource reservations, a receiving station can more quickly re-establish services than is possible with conventional systems that simply delete resource reservations when they cannot be supported and then re-establish these resource reservations later.¹

Chang discloses a method for establishing and refreshing multicast resource reservations.² In particular, Chang discloses a method for maintaining correct resource reservations when the state of the multicasting group has changed.³ The changes in state disclosed by Chang as initiating a change in resource reservation are the addition or deletion of a multicast subscriber, a change in a multicast route, or a change in quality of service.⁴ In Chang, when a resource reservation must be changed due to reductions in link quality, a resource management message is sent to all affected nodes which will result in re-routing traffic through alternate nodes in response the degradation in service.⁵ Chang does not, however, disclose temporarily shunting a specific data stream at an upstream node and temporarily utilizing the specific resource reservation at the upstream node assigned to the specific data stream for other traffic while still maintaining the correspondence of the specific resource reservation and the specific data stream for future reactivation as recited in

¹ Specification, page 1, line 29 – page 2, line 14.

² Chang, column 8, line 51 – column 9, line 20, and Figure 4.

³ Chang, column 9, lines 20-40, and Figure 5.

⁴ Chang, column 9, line 64 – column 10, line 8.

Applicants' independent Claim 8. Thus, Applicants submit that Chang does not anticipate or render obvious the invention recited in Claim 8, or any claim depending therefrom.

Applicants have also considered the Crisler and Crowcroft references and submit that these references do not cure the deficiencies of Chang. Crisler discloses transmitting reservation grants according to a preferred signaling technique, where the signaling technique is determined based on a quality measurement.⁶ Crowcroft discloses hierachal coding.⁷ Like Chang, neither Crisler nor Crowcroft disclose temporarily shunting a specific data stream at an upstream node and temporarily utilizing the specific resource reservation at the upstream node assigned to the specific data stream for other traffic while still maintaining the correspondence of the specific resource reservation and the specific data stream for future reactivation as recited in Applicants' independent Claim 8. Therefore, as none of the cited references, individually or in combination, teach or suggest all the elements recited in Applicants' independent Claim 8, Applicants submit that the inventions of Claim 8, and all claims depending therefrom, are not rendered obvious by the asserted prior art for at least the reasons stated above.⁸

⁵ Chang, column 11, lines 3-31, Figures 5-6.

⁶ Crisler, column 2, lines 44-55.

⁷ Crowcroft, page 1.

⁸ MPEP § 2142 "...the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)."

Accordingly, in view of the present amendment and in light of the previous discussion, it is respectfully submitted that the application is believed in condition for allowance and early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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IN THE CLAIMS

1-7. (Cancelled).

8-14. (New).

IN THE ABSTRACT

Please amend the paragraph on page 11, lines 3-26 as follows:

~~The invention relates to a~~ A method at a telecommunications system and a data communications system ~~which configured to adapts~~ a resource reservation protocol for fixed networks (102) to radio networks with ~~a~~ large variation in bandwidth and quality. ~~At~~ Using a method of hierarchical coding, a data stream is divided into separate data streams with different priorities. ~~By~~ Using the resource reservation protocol, ~~then~~ resources in the fixed network (102) for the data streams are reserved. A node in the fixed network ~~throws~~ shunts the data streams according to a pre-decided priority ~~if as~~ the transmission capacity of the node decreases. ~~If~~ Thus, if the transmission capacity at ~~this~~ the node decreases, and the quality requirement of a data stream ~~fails to be kept up~~ cannot be maintained, the data stream in question is ~~thrown~~ shunted. ~~After that~~ Upon shunting, the node transmits a message ~~to~~ instructing ~~the upstream~~ nodes ~~where the resource reservations are~~, ~~towards the transmitter~~ (105) ~~with the following content: to update their resource reservations; for the data stream;~~ ~~i.e. keep the resource reservations which are required to transmit the data stream; use the~~

reserved resource temporarily for other traffic; and-(throw shunt the data stream until
different is stated otherwise instructed.